INDIA'S RISE AS A POTENTIAL GLOBAL HUB FOR LED DISPLAY MANUFACTURING

*India's LED display manufacturing sector is witnessing a significant transformation, driven by rising domestic demand, supportive government policies, and global supply chain realignments. In this feature, **Sanket Rambhia**, Managing Director, **LEDX Technology**, shares his perspective on India's opportunities, challenges, and the strategic steps needed to strengthen its position in the LED display industry on a global stage.*

Sanket Rambhia, Managing Director, LEDX Technology

Why is India emerging as a strong contender in the global Active LED display market?

The global Active LED display market is at a turning point, with demand for high-resolution, energy-efficient, and versatile display solutions rising across advertising, entertainment, retail, sports, corporate and smart city projects. For years, China has dominated this space, which has become synonymous with LED display manufacturing. Chinese firms enjoy economies of scale and advanced supply chains and aggressive pricing strategies that have cemented their leadership. However, with the rise of geopolitical conflicts, supply chain diversification, and the search for new locations to set up manufacturing bases, the door has opened for new entrants. India, with its burgeoning domestic market and government support for electronics manufacturing, is increasingly being viewed and can become a new global hub for the production of active LED displays.

What is working for India today is the size and rapid growth of its market. Adoption of Active LED displays across different verticals has been accelerating at a pace that sometimes even outstrips Western European countries. From advertising billboards to sports stadiums to corporate boardrooms, meeting rooms and retail environments, Indian demand is expanding quickly, creating a strong domestic base for manufacturers. This adoption trend is supported by the government's efforts to promote electronics manufacturing through initiatives such as Make-in-India and the Production Linked Incentive (PLI) scheme. The central as well as state governments are providing schemes and incentives to attract large companies as well as SMEs to invest in electronics manufacturing. On the ground, green shoots of this policy are visible, with new manufacturing units and startups arising and making meaningful contributions to the sector.

What is the biggest supplier ecosystem challenge for India today?

For India to become a truly diverse and dynamic ecosystem that can be labelled a global hub, there is still some work to be done. Manufacturing thrives when supported by a deep supplier ecosystem, and currently India lacks the scale of specialised suppliers that China has built over decades. For one factory to succeed, it requires ten or more suppliers to service it, and India's supplier base is still broad rather than deep. Although the progress is clear, with suppliers emerging in the areas of cabinets, power supplies, and PCBs, the supply chain is not yet complete. Two years ago, the supply of PCBs in India was negligible, but now it is increasing rapidly. There needs to be an oversupply of components in this sector, so as to keep the prices in line with global standards. However, India is still lagging behind in the crucial sectors of chips, ICs, and LED lamps, which are currently being imported from China. Silicon fabs are being built in India, but these are long-term investments that will take time to pay off, and it will be another two to three years before they can contribute meaningfully to the manufacture of LED displays. Similarly, complex components like receiver cards, control systems, and video processors are still sourced from China and may take five years or more to establish locally. For India to compete with China, all three supplier grades, from basic components like cabinets and PCBs to silicon and ICs and finally to advanced control systems, MUST be present domestically.

What policy corrections are needed to accelerate domestic LED display manufacturing based on current market adoptions?

Policy support will continue to play a decisive role. While India has struck free trade agreements with several countries, the duty structures for electronics currently

offer little advantage over China, as most countries levy similar or zero duties on both. A significant policy lever that could accelerate India's rise would be imposing higher customs duties on finished goods compared to raw materials. At present, easy imports, under-invoicing, and duty violations through misclassification have slowed the pace of domestic manufacturing adoption. Correcting these issues is critical. Finished products should have much higher duties than raw materials, and this will provide a clear impetus to entrepreneurs and startups to invest in local manufacturing. These sectors are capital-intensive, and unless investors are assured of the possibility of making large profits, they will be reluctant to take the risk. Additionally, enforcement must be tough to prevent under-invoicing, and HSN code misrepresentation, so that the system caters to local manufacturers rather than importers who take advantage of loopholes.

How Can Sustainability and Export Potential Strengthen India's Position as a Global LED Display Manufacturing Hub?

Sustainability is another area where India can gain an edge. With a global emphasis on green manufacturing, India can position itself as a hub for eco-friendly LED display production by integrating renewable energy into manufacturing plants, reducing costs, and appealing to ESG-conscious buyers. The export potential is also high, with rising demand in South America, Africa, the Middle East, and South Asia. India's trade agreements with EU, Japan & USA as well as diplomatic outreach can assist market access, making it a viable competitor to China for many buyers.

India is at a crossroads in its industrial development. The confluence of government policies, domestic demand, and global supply chain shifts offers a window of opportunity for India to establish itself as a global leader in LED display manufacturing. This will require bridging the technology gap, developing a complete supply chain ecosystem for all grades of Active LED displays, and ensuring that policies are conducive to local manufacturing. If executed strategically, India has the potential not only to rival China but also to create a niche for itself in the global electronics industry, becoming a trusted and innovative leader in LED display manufacturing in the years to come.